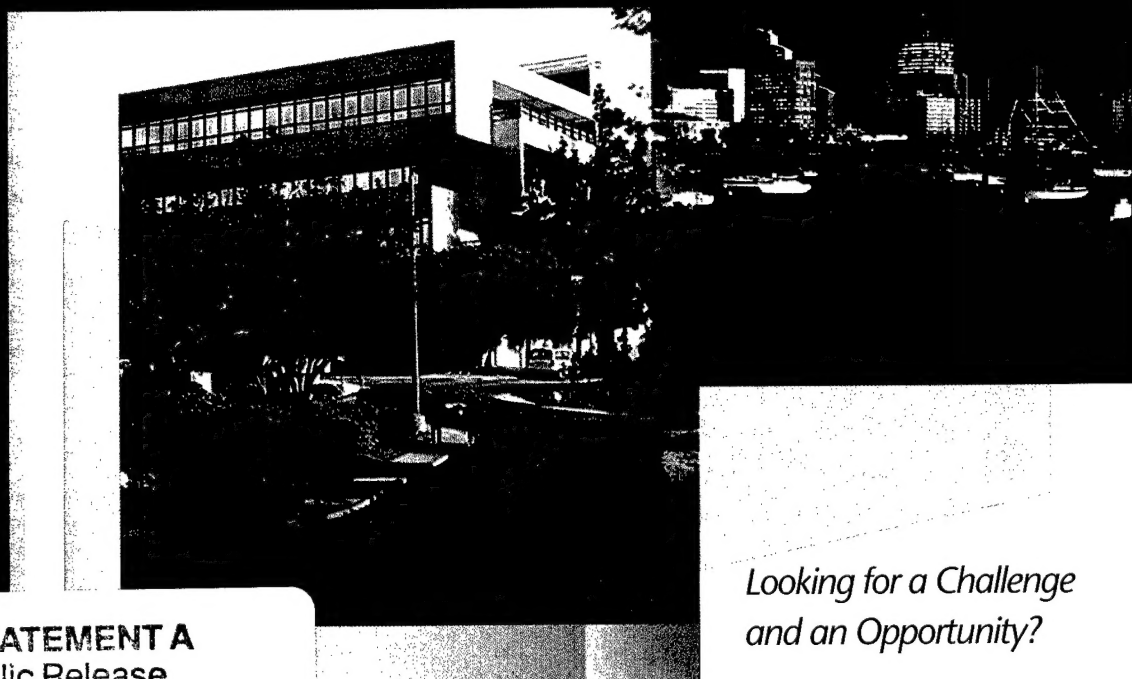
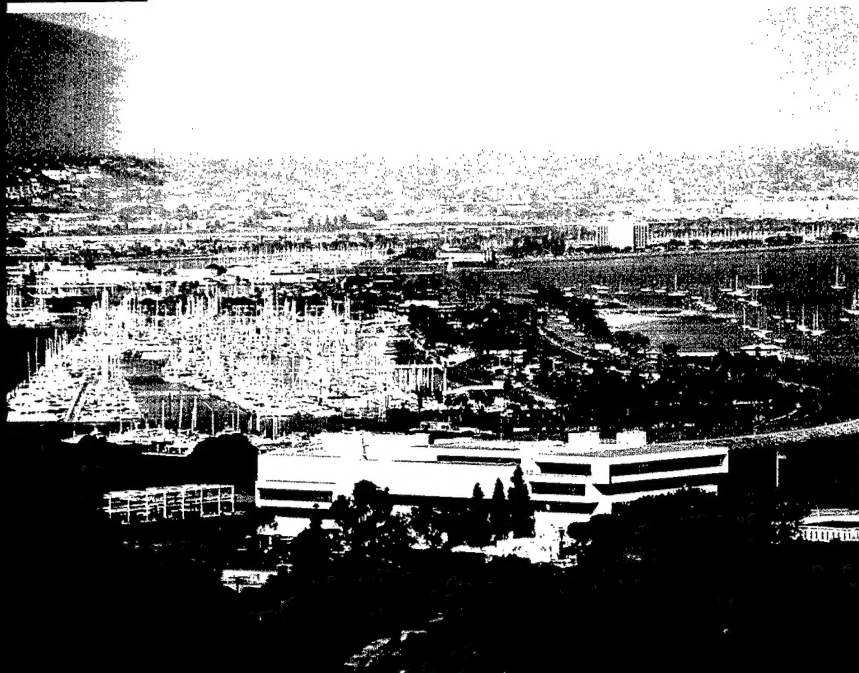


REPORT DOCUMENTATION PAGE					Form Approved OMB No. 0704-01-0188	
The public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to Department of Defense, Washington Headquarters Services Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.						
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1. REPORT DATE (DD-MM-YYYY) 07-2000		2. REPORT TYPE Brochure			3. DATES COVERED (From - To)	
4. TITLE AND SUBTITLE SSC San Diego Employment Opportunities for New Professionals				5a. CONTRACT NUMBER		
				5b. GRANT NUMBER		
				5c. PROGRAM ELEMENT NUMBER		
6. AUTHORS Moore, R.				5d. PROJECT NUMBER		
				5e. TASK NUMBER		
				5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) SSC San Diego 53560 Hull Street San Diego, CA 92152-5001				8. PERFORMING ORGANIZATION REPORT NUMBER SD 013, Rev. 2		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)		
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution is unlimited.						
13. SUPPLEMENTARY NOTES						
14. ABSTRACT This brochure describes employment opportunities for New Professionals, new college graduates in Computer Science, Computer Engineering, Software Engineering, and Electronic Engineering. The brochure describes the New Professionals Program in addition to providing information about the city of San Diego.						
15. SUBJECT TERMS New Professionals Program						
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON	
a. REPORT	b. ABSTRACT	c. THIS PAGE			R. Moore	
U	U	U	UU	16	19b. TELEPHONE NUMBER (Include area code) (619) 553-1628	

**SSC**  
**San Diego**

ment  
opportunities  
for **new**  
**PROFESSIONALS**



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*Looking for a Challenge  
and an Opportunity?*

  
**SPAWAR**  
Systems Center  
San Diego

**20010306 032**

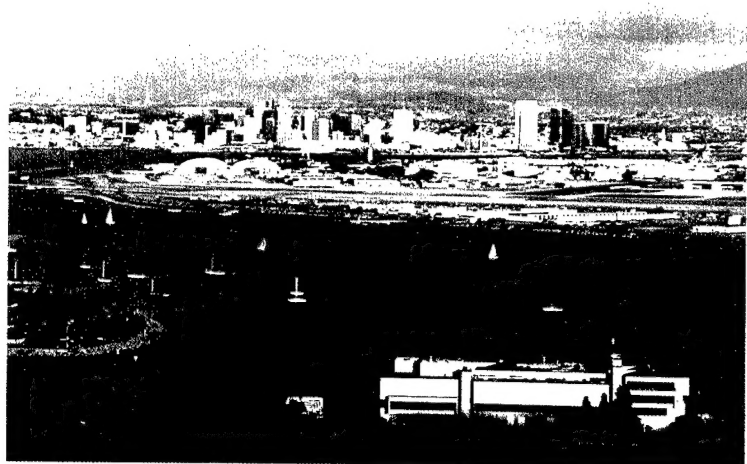
is primarily looking for new college graduates in  
**Computer Science, Computer Engineering,  
Software Engineering, and Electronic Engineering.**

### **The Navy's Premier Research and Development Laboratory**

Welcome to the Space and Naval Warfare (SPAWAR) Systems Center, San Diego (SSC San Diego). Originally established in 1940 as the Navy's first West Coast laboratory, our Center has gone through various name changes over the years. You or your professors may recognize us by one of our former names, such as the Naval Electronics Laboratory Center (NELC), the Naval Undersea Center (NUC), the Naval Ocean Systems Center (NOSC), or the Naval Command, Control and Ocean Surveillance Center (NCCOSC) Research, Development, Test and Evaluation (RDT&E) Division (NRaD).

Throughout these transitions over 60 years, we remain the Navy's premier R&D laboratory for information technology, systems conceptualization, development, and deployment. To sustain our leadership role, we require a highly capable and motivated workforce. The future of SSC San Diego is directly linked to our ability to recruit outstanding Computer Science, Computer Engineering, Software Engineering, and Electronic Engineering candidates for positions in our New Professionals (NP) Program. Among the opportunities we offer are careers in the innovative areas of command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR), and in all Navy navigation systems, including the Global Positioning System (GPS).

SSC San Diego's laboratories provide worldwide networking capabilities, plus the ability to participate in major joint-service exercises. Center facilities include waterfront access and berthing capabilities that are crucial to activities in ocean surveillance and reconnaissance. In addition, SSC San Diego provides a full range of in-service systems engineering, management, logistics, installation, and technical support. Besides San Diego, other Center facilities in Hawaii, Japan, and Guam provide fleet support to our customers in the mid- and Western Pacific.



CORONADO



## san diego beaches

San Diego County's 70 miles of ocean beaches and Mexico's Baja coastline beckon visitors to exciting and unique destinations. White sand beaches, lobster dinners, and border shopping sprees are regional favorites. Afternoons of volleyball and sunset picnics by local bays, coves, and cliffs typify the San Diego lifestyle.

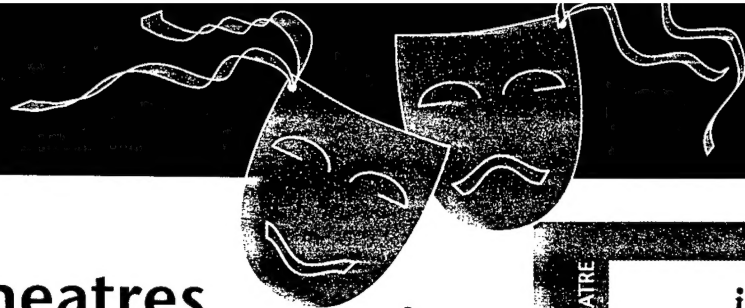




## colleges and universities

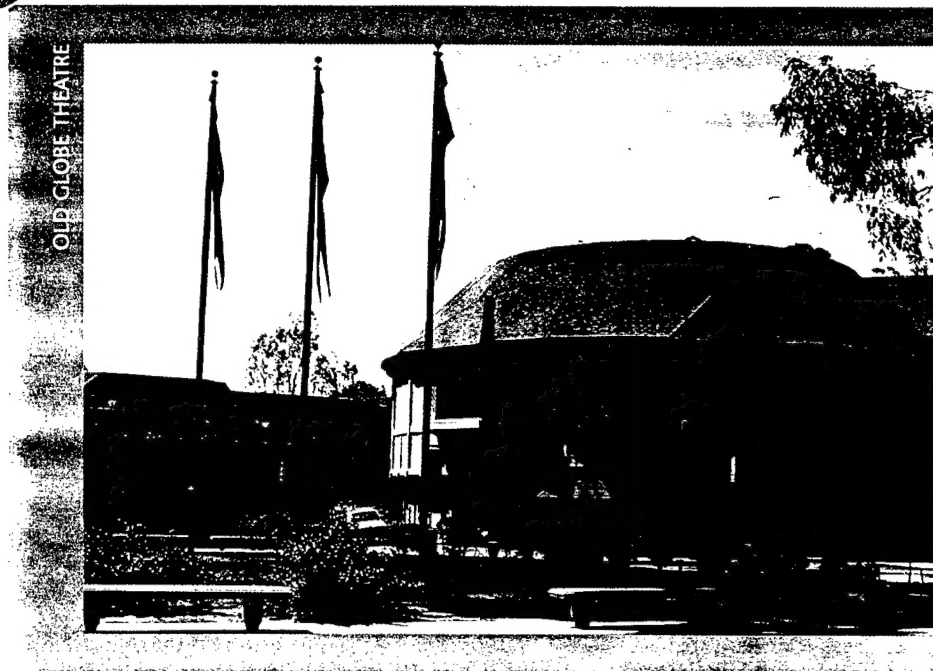
Many of San Diego's colleges and universities have been recognized both nationally and internationally for excellence in education and have received prestigious rankings in fields such as engineering, computer science, law, medicine/biomedicine, and drama. SSC San Diego itself offers world-class library services and supports the city's college and university system through employee participation in undergraduate and graduate studies (aided by our employee-assistance programs) and through the exchange of scientific information. Every summer, SSC San Diego's Academic Program brings post-doctoral fellows from around the country to work with colleagues on technical programs at SSC San Diego. Many Center employees also serve as judges at area-wide science fairs. Some of San Diego's major colleges and universities are

- ▼ *University of California, San Diego*
- ▼ *University of San Diego*
- ▼ *San Diego State University*
- ▼ *California State University, San Marcos*
- ▼ *Point Loma Nazarene College*
- ▼ *National University*



## theatres and music

The world of San Diego is a stage for everyone from actors in community theatre, to summer stock, to world-famous performers in such nationally acclaimed playhouses as the Old Globe Theatre, the La Jolla Playhouse, and Escondido's California Center for the Arts. San Diego's downtown Civic Theatre and adjacent Golden Hall also play host to ballets, operas, plays, and musicals. Concerts by the bay feature rock, pop, country, and jazz artists.



## san diego museums

Acclaimed as one of America's most livable cities, San Diego also is home to world-class history museums, specialty museums, and art galleries, with most of them located in nearby Balboa Park.

BALBOA PARK



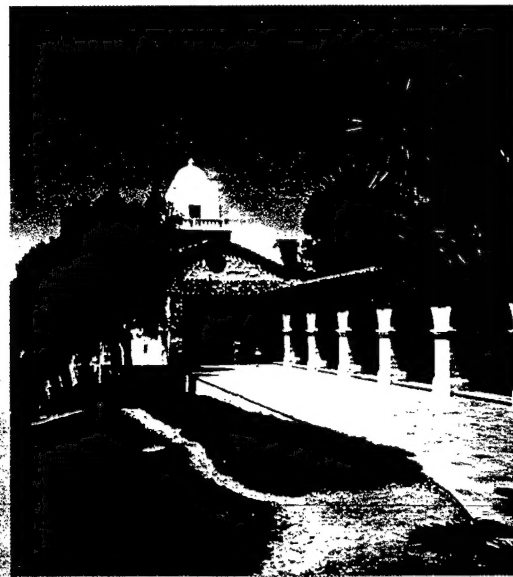
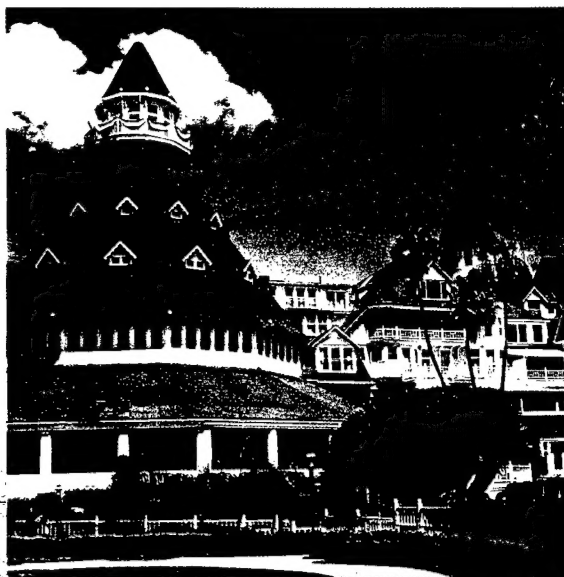
## *other* attractions

A haven for scientists, educators, artists, sports enthusiasts, and entrepreneurs, San Diego offers an ever-increasing list of attractions. Some of the major ones include the ARCO Olympic Training Center, Balboa Park, Mission San Diego de Alcala, Old Town, and the Salk Institute for Biological Studies. In addition, there's the world-famous San Diego Zoo and the San Diego Wild Animal Park, Scripps Institution of Oceanography, Sea World of California, and venues for all major spectator sports.

# history of san diego

San Diego has been attracting visitors and new residents since 1542, when Cabrillo first sailed into its beautiful bay. Hidden from the view of passing ships, San Diego remained undeveloped for many years. With the arrival of Father Junipero Serra in July 1769, San Diego was officially founded. In 1821, Spain lost control of California, and Mexico ruled the land until defeated by the U.S. in 1846. In 1850, California became a state and thus began an influx of people who forever changed San Diego and all of California.

In 1927, Charles A. Lindbergh flew nonstop across the Atlantic Ocean in the *Spirit of St. Louis*, built at the Ryan Aeronautical Company in San Diego. From then on, San Diego was elevated to a position synonymous with excellence in aircraft design, development, and production; and later, in electronics, avionics, and missile systems. Most recently, San Diego has also become pre-eminent in biomedical engineering and in the design and development of highly sophisticated software and computer systems. Today, San Diego stands as a major center for multidiscipline high-technology research, development, and manufacturing—producing commercial and military products in use throughout the world.



# benefits and entitlements

## Holidays

There are 10 nationally observed holidays per year. Holiday pay is granted for holidays whether they fall within the workweek or on a weekend.

## Annual Leave – Vacation

Annual (vacation) leave accrues on the basis of length of Federal service (civilian or civilian plus creditable military service).

0 to 3 years service = 4 hours per pay period  
(104 hours per year) (Pay periods are 2 weeks.)

3 to 15 years service = 6 hours per pay period  
(160 hours per year)

Over 15 years service = 8 hours per pay period  
(208 hours per year)

## Sick Leave

Sick leave accrues at the rate of 4 hours per pay period (104 hours per year); may be accumulated without limitation; and may also be used for medical or dental appointments. The Family Friendly Leave Act allows sick leave to take care of ill family members and to take them to physicians, and for the birth or adoption of children. (NOTE: Federal employees are not eligible for benefits under the state of California Disability Program.)

## Health Insurance

Several group plans are available. Premiums are paid through payroll-deduction, and the government shares part of the cost. Rates vary according to the plan selected. For more information, visit the Federal Employees Health Benefits website at: <http://www.opm.gov/insure>

## Group Life Insurance

The employee and the government share the cost of basic group life insurance if elected by the employee. Employees pay all optional insurance costs, depending on employee age and amount of coverage. See <http://www.opm.gov/insure/life>

## Retirement Coverage

The Federal Employees Retirement System (FERS) consists of three elements: a basic benefit (pension) plan, Social Security benefits, and the Thrift Savings Plan (TSP). Employees pay full Social Security taxes and contribute a small amount to the pension plan. Employees can make tax-deferred contributions (up to 10% of gross income) to the TSP, and the government will match up to 5%. See <http://www.tsp.gov>

## Work Schedule

SSC San Diego's nonstandard 2-week work schedule is called "5/4/9." Every other week has a 3-day weekend. Hours for Monday through Thursday are 7:15 a.m. to 4:45 p.m. (9 hours with 1/2 hour lunch). Friday (payday) hours are 7:15 a.m. to 3:45 p.m. The following Friday the Center is closed.

## Training and Educational Opportunities

Training and development opportunities are available and encouraged for all employees. Opportunities include after-hours study in job-related scientific and engineering areas. Employees may receive tuition assistance and/or enrollment expenses for courses at accredited colleges and universities. Employees may also attend job-related short courses and conferences during normal working hours.

## Salary

Entry salaries and bonus payment are adjusted yearly with Cost of Living and Locality Pay adjustments. See the below website, Vacancy Announcements section, and then click on each position to find the entry salary and signing bonus: <http://www.spawar.navy.mil/sandiego/np>

# qualifications for employment

If your technological talents are superior and your ambitions are far-reaching, our New Professionals (NP) Program offers you the opportunity to join the ranks of our leading scientists and engineers.

SSC San Diego is interviewing current-year graduates in science and engineering with an emphasis on Computer Science, Computer Engineering, Software Engineering, and Electronic Engineering at the B.S./M.S./Ph.D. degree levels. A cumulative GPA of 3.0 or above (on a 4.0 scale) or equivalent is required, with excellent written and communication skills a plus. All applications will be considered.

## **Our primary interests are for:**

### **Computer Engineers/Computer Scientists/Software Engineers with training/experience in**

- Languages: JAVA, C++, C, Ada, FORTRAN, some CMS-2

- Computer Systems: SGI workstations, Sun Workstations, PCs, High Performance Computers (HPC) (e.g., HP, SGI, IBM)

- Object-Oriented Analysis and Design, Unified Modeling Language, Object-Oriented Programming, Component Development, Object Brokers, Enterprise JAVA Beans, etc.

- Real-time and distributed operating system environments

- Networking, network servers, server-client setup, LAN and WAN development and technology, etc.

- Object-Oriented and relational databases

### **Electronic Engineers with**

- A strong communications course load

- A background in radio frequency (RF) engineering

- Knowledge of programming languages and experience with UNIX or NT operating systems

- Systems engineering interest in building systems with Commercial-Off-The-Shelf (COTS) hardware

- Knowledge and/or interest in ocean acoustics, oceanography, sonar, and in impulsive sources/underwater explosives

We are also interested in applicants who will provide In-Service Engineering Agent (ISEA) Support, Software Support, and Installation Support for various communications and data interchange systems for the Navy, the Department of Defense, and other Federal Agencies.

- ISEA Support tasking may include

- Maintenance Management, Systems Performance Evaluation, Maintenance Engineering, Maintenance Documentation Support, Configuration Management, Depot-Level Repair Support, Maintenance Support, and Technical Assistance

- Software Support tasking may include

- Software Design, Development, Maintenance, Modifications, or Updates; Configuration Control; Documentation Support; Testing; and Installation Support

- Installation Support tasking may include

- Installation Design; Site Preparation; Installation of Equipment/Systems; and Installation, Test, and Evaluation

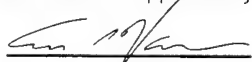
For more information about the Space and Naval Warfare Systems Center, San Diego, see the SSC San Diego home page at <http://www.spawar.navy.mil/sandiego/>

Send your resume to:

SSC San Diego  
Attn: College Recruitment Office, D0207  
53560 Hull Street  
San Diego, CA 92152-5001

Phone: (619) 553-1837  
Fax: (619) 553-3140  
Email: npjobs@spawar.navy.mil

Reviewed and approved by



Ernest L. Valdes, CAPT, USN  
Commanding Officer

SD 013, Rev. 2  
July 2000

A Product of the Technical Information Division (TID)

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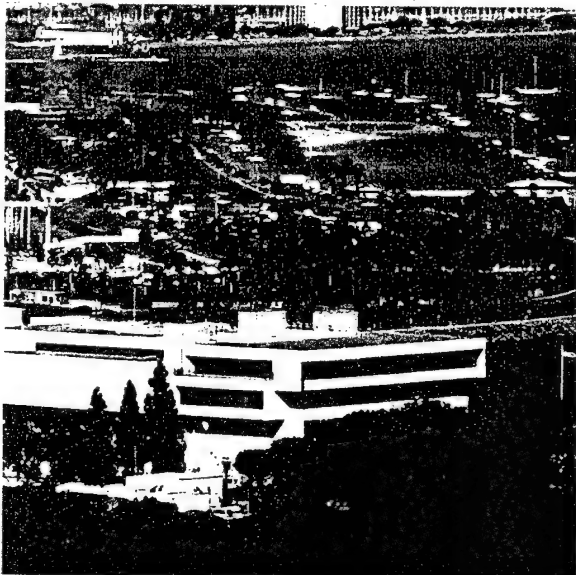


# working at SSC San Diego

SSC San Diego is located on the beautiful Point Loma peninsula – an ecological wildlife and botanical reserve encompassing natural habitats that have been ensured protection by the U.S. Navy. Located approximately 7 miles from downtown, SSC San Diego occupies more than 500 acres. To the west, the Center overlooks the Pacific Ocean; immediately to the south, Mexico; and to the east, beautiful San Diego Bay, the skyline of San Diego, and the Laguna Mountains, which slope to the Anza-Borrego Desert National Park. In this natural setting, SSC San Diego offers a campus-like atmosphere where you'll work with your peers and with senior scientists and engineers, who, as mentors, will help you advance professionally in your area of expertise. For employees with young families, the Navy also offers an on-site Child Development Center. Features of the child-care center include a professional staff, modern facilities, excellent care, and competitive prices. Infants are accepted at 6 weeks of age.

## **Proven Performance Offers Job Stability**

Although several Navy facilities have been realigned and others closed, SSC San Diego has gained significant new facilities and has recently joined with our primary command, the Space and Naval Warfare Systems Command (SPAWAR), formerly headquartered in Washington, DC.



Allegory of the Cave  
Command Center  
Vulnerability Analysis  
System Architecture  
Network and Integration



## new professionals *program*

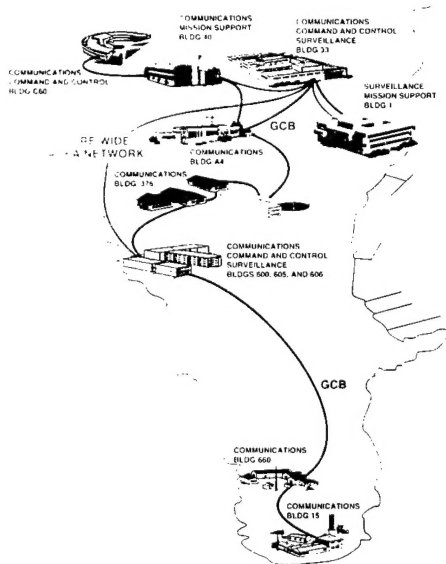
As a recent graduate in Science and Engineering, you may begin your career at SSC San Diego through the New Professionals Program. Your time as a New Professional involves working for 3 months each in several groups on technical projects related to your background and interests. This initial period will provide you the opportunity to experience various types of work and to get to know SSC San Diego. Afterwards, you'll transition to a permanent assignment in information technology, systems conceptualization, development, or deployment, in the innovative areas of command, control, communications, computers, intelligence, surveillance, reconnaissance, or Navy navigation systems.



## network-linked laboratories

SSC San Diego's extensive state-of-the-art command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) test laboratories are networked together to ensure operational compatibility of new equipment with existing C4ISR systems. These laboratories, with over 30 associated testbeds, enable scientists and engineers to perform component- and systems-level testing that includes:

- ▼ Specific testing to support systems software
- ▼ In-service support to retest software/hardware interfaces
- ▼ Detailed and general tests of throughput
- ▼ Compatibility testing at all levels, including protocol testing
- ▼ Simulation of actual operational environments
- ▼ Testbeds that "talk" to each other
- ▼ Satellite communications on-air testing
- ▼ Complete real, simulated, and replicated all-environment testing of Global Positioning System (GPS) user equipment
- ▼ Full-spectrum live, simulated, and replicated all-environment testing of C4ISR systems
- ▼ Testbeds that simulate a complete joint-services theater of operations or battle space



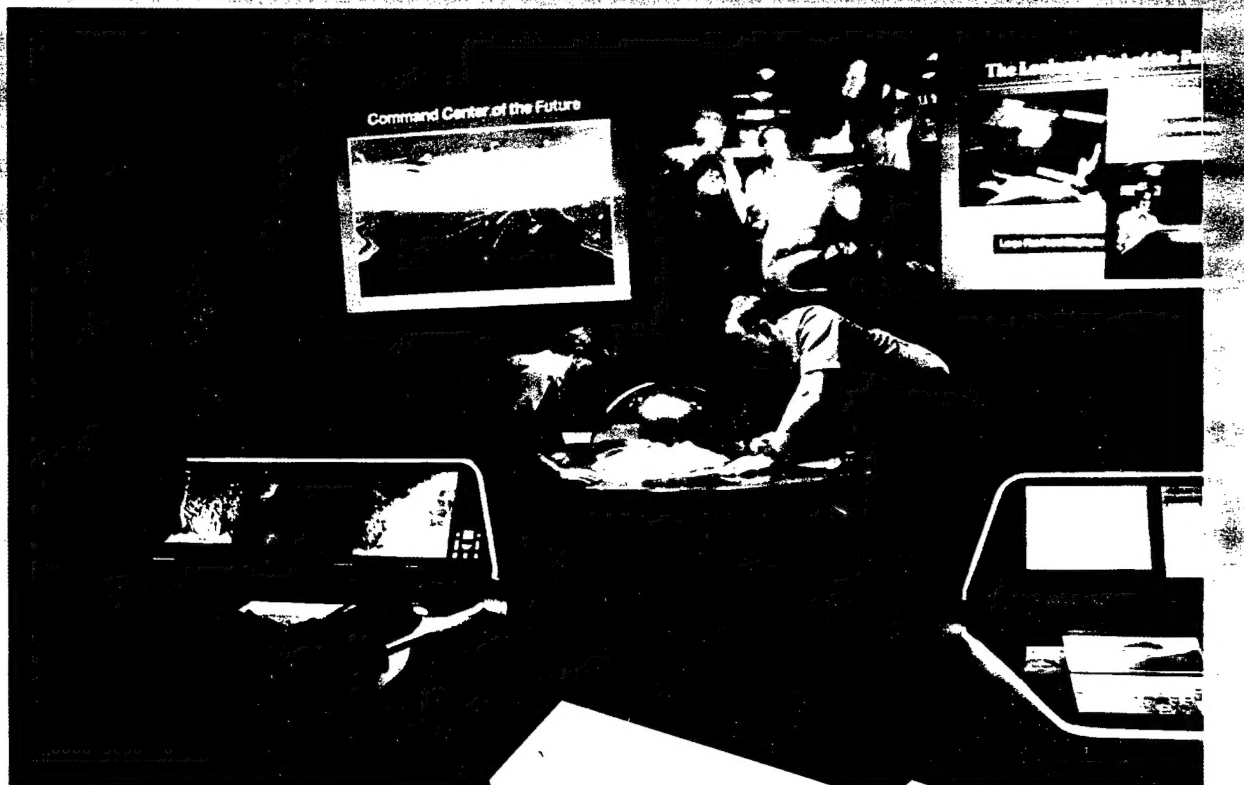
## high performance computing (HPC)

The Center has long been active in high performance computing and networking. The current HPC inventory includes two Hewlett-Packard V2500 computers supported by extensive storage systems (each with 28-GFLOPS processing capability, 24-GBytes memory, 600-GBytes disk, and 10.5-TBytes archival storage); visualization workstations; and high-bandwidth (OC-12, 622-Mbps) asynchronous transfer mode (ATM) backbones for both unclassified and classified work. Upgrades to the computational systems are under contract to be delivered in order to utilize new IA-64 architecture processors and to support both UNIX and Windows operating systems.

These facilities are available to Center projects with high computational rate, large memory, and/or large storage requirements. Examples include the integration of parallel-processing machines in existing command and control (C2) applications and software development for a number of sensors including sonar, synthetic aperture radar, infrared (IR), and hyperspectral. The facilities also support electromagnetic modeling of ship superstructures for antenna design and placement, modeling of marine mammal auditory processes, distributed, multi-level, real-time simulation, and force modeling and simulation (FMS). The Center leads the development of FMS/C4I HPC software for the Department of Defense (DoD).

SSC San Diego is one of 17 HPC Distributed Centers established by the DoD. The Center is linked via the high-bandwidth Defense Research and Engineering Network (DREN) to these and other HPC centers throughout the United States, including four major DoD centers at Aberdeen Proving Ground, MD; Stennis Space Center, MS; Vickburg, MS; Wright-Patterson Air Force Base, OH; and to the San Diego Supercomputer Center. See <http://www.hpcmo.hpc.mil> for more information about DoD HPC, DREN, and HPC software development.





## ssc san diego's commandcenter *of the future*

SSC San Diego designed, developed, and implemented the Command Center of the Future to realistically depict technologies expected to be part of command and control within the next 10 to 15 years. Although some of these technologies may not currently be available, the Command Center of the Future presents a vision of how the Navy will use these advanced technologies in command, control, communications, computers, intelligence, surveillance, and reconnaissance (C4ISR) systems of the future. This unique capability enables warfighters to understand how technological advances will improve their ability to perform future missions and allows technologists to foresee how their designs could be employed in future command centers. Some of the technologies evaluated include voice and gesture recognition; intelligent agents; personal digital assistants; advanced visualization technologies; natural human-computer interfaces; and secure, global, seamless communication incorporating collaborative technologies.





# living *in san diego*

San Diego, "America's Finest City" and California's second-largest city, offers miles of sandy beaches, numerous museums specializing in several fields and disciplines, outstanding colleges and universities, many well-known performing arts centers, and other major attractions, ranging from the San Diego Zoo to the Salk Institute for Biological Studies.

The city's sun-bathed landscape and superb Mediterranean climate encourage year-round recreation. The ocean, bays, and islands invite swimming, fishing, diving, surfing, and sailing. And the surrounding mountains, valleys, and deserts provide a change of temperature for those who prefer a touch of the seasons. A metropolitan area, increasingly cosmopolitan, San Diego is located near small, friendly towns and the Mexican border.

